

**PATENT**

Atty Docket No.: 10015452-1  
App. Ser. No.: 10/073,850

**REMARKS**

Favorable reconsideration of this application is respectfully requested in view of the amendments above and the following remarks. Claims 1, 3, 6-10, and 12 have been amended. Claim 5 has been canceled without prejudice or disclaimer of the subject matter contained therein. Claims 1-4 and 6-24 are currently pending, of which, claims 1, 10, and 14 are independent.

No new matter has been introduced by way of the claim amendments or additions and entry thereof is therefore respectfully requested.

Claims 1-13 were rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter.

Claim 22 was rejected under 35 U.S.C. §112, 1<sup>st</sup> paragraph, as allegedly failing to comply with enablement requirement.

Claims 3 and 12 were rejected under 35 U.S.C. §112, 2<sup>nd</sup> paragraph, as allegedly being indefinite.

Claims 1-3, 5-8, 10-14, 18, 19, and 25 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by "Java Hyperbolic Browser in action" by V. Bulatov (hereinafter, "Bulatov").

Claims 4, 9, 15, 16, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bulatov in view of Kim et al. (6,026,362).

Claims 17 and 20-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bulatov in view of Brunct et al. (6,654,759).

These rejections are respectfully traversed.

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**Drawings**

The undersigned appreciates the indication by the Examiner that the drawings as filed on February 11, 2002 are acceptable.

**Information Disclosure Statement**

The indication that the documents cited in the Information Disclosure Statement filed on February 11, 2002 have been considered is also noted with appreciation.

**Claim Rejection Under 35 U.S.C. § 101**

The Official Action has rejected Claims 1-13 under 35 U.S.C. §101 on the alleged basis that,

The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Since the method steps recited in the claims do not invoke the use of any tangible device or results, the claims cannot be considered statutory. Office Action, p. 2.

The test for determining if a claim is directed to statutory subject matter for compliance with 35 U.S.C. §101 is set forth in State Street Bank & Trust Co. v. Signature Financial Group ("State Street"), and cited in 35 U.S.C. 101 Training Materials for patent examiners available on the USPTO website at [www.uspto.gov/web/menu/pbmethod/trangmaterials.ppt](http://www.uspto.gov/web/menu/pbmethod/trangmaterials.ppt):

When an abstract idea is reduced to a practical application, the abstract idea no longer stands alone if the practical application of the abstract idea produces a useful, concrete and tangible result. This then satisfies the requirements of 35 U.S.C. 101. *In re Alappat.*, 31 USPQ 2d 1545, 1558 (Fed. Cir. 1994); *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 47 USPQ2d 1596, 1601-02 (Fed. Cir. 1998).

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The Court also held in State Street that,

The question of whether a claim encompasses statutory subject matter should not focus on *which* of the four categories of subject matter a claim is directed to—process, machine, manufacture, or composition of matter—but rather on the essential characteristics of the subject matter, in particular, its practical utility. State Street Bank & Trust Co. v. Signature Financial Group, 47 USPQ2d 1596, 1600 (Fed. Cir. 1998).

Therefore, any allegation that a claim is directed to an abstract idea because it is “not tied to a technological art, environment or machine” or that it does not “invoke the use of any tangible device or results” is groundless and without any statutory or case law basis. In fact, such allegation runs contrary to precedential Court holdings, such as the Court holding in State Street above.

According to the aforementioned 35 U.S.C. §101 Training Materials for patent examiners, for a “useful” result:

- (a) the utility need not be expressly recited in the claims, rather it may be inferred;
- (b) if the utility is not asserted in the written description, then it must be well established;
- (c) a specific, substantial and credible utility must be accomplished. 35 U.S.C. §101 Training Materials, p. 19.

It is respectfully submitted that pending claims 1-4 and 6-13 produce a useful result, as may be inferred from the specification in at least paragraphs [0011], [0202], [0203], and [0247] – [0251].

According to the same 35 U.S.C. §101 Training Materials, a “concrete” result is one that is assured with enablement for the claimed invention. *See, e.g., Id.* at p. 20. It is respectfully submitted that enablement for the pending claims is provided in the specification, as affirmed by the Office Action from a lack of any enablement rejection that accompanied the rejection of originally-presented claims 1-13 under 35 U.S.C. §101.

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Also according to the same 35 U.S.C. §101 Training Materials, a “tangible” result must not be mere manipulation of an abstract idea. It is respectfully submitted that the pending claims produce tangible results, whereby runtime information from a computer system is tangibly displayed in nodes of hyperbolic trees so that the user may “understand the dynamic behavior of large scale distributed software applications.” Whether such a display must be depicted in a display device is relevant only to the breadth of the claims, and it is irrelevant to the “useful, concrete and tangible result” test under 35 U.S.C. §101.

Accordingly, because pending claims 1-4 and 6-13 provide a practical application with useful, concrete and tangible result(s), withdrawal of the rejection under 35 U.S.C. §101 is respectfully requested.

**Claim Rejection Under 35 U.S.C. §112, 1<sup>st</sup> paragraph**

Claim 22 was rejected under 35 U.S.C. §112, 1<sup>st</sup> paragraph, as allegedly failing to comply with the enablement requirement because the specification allegedly does not provide software support for the display device to query an analyzer for runtime information as claimed.

Paragraph [0190] of the present specification states,

“[n]odes and links inside a tree need to be encoded in a format defined by the software viewer that displays the hyperbolic trees in the display 119, for example, the one from Inxight (see <http://www.inxight.com>). Such encoding is performed in the analyzer 110 and the analyzer 110 puts this information into a display to be presented to the user.”

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Thus, the display device can use, for example, the aforementioned software viewer to query the analyzer 110 because it is the analyzer 110 that provides the encoded data for nodes and links for the software viewer.

Because claim 22 is clearly enabled by the specification in at least paragraph [0190], withdrawal of the rejection of claim 22 is respectfully requested.

Claim Rejection Under 35 U.S.C. §112, 2<sup>nd</sup> paragraph

Claims 3 and 12 were rejected under 35 U.S.C. §112, 2<sup>nd</sup> paragraph, as allegedly being indefinite. Claims 3 and 12 have been amended to be in better compliance with the provisions of 35 U.S.C. § 112, 2<sup>nd</sup> paragraph. Accordingly, withdrawal of the rejection of claims 3 and 12 is respectfully requested.

Claim Rejection Under 35 U.S.C. §102(b)

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. § 102, is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents thereof functioning in substantially the same way to produce substantially the same results. As noted by the Court of Appeals for the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. § 102, the Court stated:

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.

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Therefore, if the cited reference does not disclose each and every element of the claimed invention, then the cited reference fails to anticipate the claimed invention and, thus, the claimed invention is distinguishable over the cited reference.

Claims 1-3, 5-8, 10-14, 18, 19, and 25 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Bulatov.

Claims 1 and 5

Claim 5 was rejected because Bulatov's paragraph 8 allegedly discloses the following claim language, "generating a linking graph that links said first hyperbolic tree and a second hyperbolic tree."

Bulatov's paragraph 8 states,

Clicking by mouse over a method's circle causes drawing of bounds, which connect this method with its callers (yellow hyperlines) and callees (white hyperlines). The selection is reflected also in corresponding lists of main window. Clicking by mouse over class or package node causes drawing of all caller-callee bounds for methods from corresponding class or package.

It is respectfully submitted that Bulatov's paragraph 8 was taken out of context for the rejection of claim 5. Bulatov describes the use of a hyperbolic profiler browser through the application of a Poincare-disk model in order to completely show all methods, classes, and packages of a Java program as nodes, represented by circles, in a *single* tree (see paragraphs 5 and 6). Thus, the method's circle referred to in paragraph 8 is a node in the same tree. By clicking on such a node or circle, the user can expand the *same* tree to show the "drawing of bounds," that is, branches, that connect such a node to various components in the Java program in the *same* tree described throughout Bulatov. In contrast, claim 5 recites not only the displaying of a first hyperbolic tree, but also the generating of a linking graph that links the first hyperbolic tree and a second hyperbolic tree.

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Because Bulatov neither discloses the generating of a linking graph nor the *two* hyperbolic trees, it is respectfully submitted that Bulatov failed to disclose each and every element of claim 5, the subject matter of which has been incorporated into amended claim 1. Accordingly, it is respectfully requested that the rejection of claim 5 be withdrawn, and amended claim 1 and its dependent claims 2-4 and 6-9 be allowed over the references of record.

Claim 10

Claim 10 has been amended to recite, *inter alia*, "generating a linking graph for displaying on the electronic display device that links said first hyperbolic tree and a second hyperbolic tree ...." Therefore, claim 10 and its dependent claims 11-13 are also allowable over Bulatov for the reasons set forth above for the allowance of amended claim 1.

Furthermore, amended claim 10 recites,

the electronic display device automatically moving a particular tree node of said first hyperbolic tree to a center node position in said first hyperbolic tree in the displaying of the first hyperbolic tree upon receiving a user input selection of said particular tree node.

In contrast, as cited by the Office Action, Bulatov, in paragraph 7, specifically requires a user to "[drag] node by mouse to center of Poincare disk" in order to zoom in on the "visible size of this circle with corresponding zooming out of nodes" so that the user presumably can position the dragged node as the center of a hyperbolic tree in the Poincare disk model. Thus, there is no automatic moving and displaying of a tree node at the center of a hyperbolic tree upon mere selection of such node by a user input as claimed.

Because Bulatov failed to disclose each and every element of claim 10, it is respectfully submitted that claim 10 and its dependent claims 11-13 are allowable over

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Bulatov and the references of record. Accordingly, withdrawal of the rejection of claims 10-13 is respectfully requested.

Claim 14

Claim 14 recites, *inter alia*, a "display device displays said runtime information as at least *two hyperbolic trees*." (Emphasis added). Therefore, claim 14 and its dependent claims 15-25 are also allowable over Bulatov for the reasons set forth above for the allowance of amended claim 1.

Claim Rejection Under 35 U.S.C. §103

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in MPEP § 706.02(j):

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Therefore, if the above-identified criteria are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

Claims 4, 9, 15, 16, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bulatov in view of Kim et al. Claims 17 and 20-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bulatov in view of Brunet et al.



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Claims 4 and 9 depend from allowable claim 1, and claims 15-17 and 20-22 depend from allowable claim 14. Therefore, claims 4, 9, 15-17, and 20-22 are allowable at least by virtue of their dependencies. In addition, the Office Action does not rely on Kim et al. or Brunet et al. to make up for the deficiencies in Bulatov with respect to claims 1 and 14. Therefore, claims 4, 9, 15-17, and 20-22 are neither anticipated nor made obvious by the references of record, and withdrawal of the rejection of these claims is respectfully requested.

Claim 17

The Office Action alleged that Brunet et al. "teaches that an application programming interface (API) can be represented as a hierarchical tree." The Office Action, therefore, also alleged that it would have been obvious to use Brunet et al.'s API tree with Bulatov's hyperbolic browser to "allow generic access to an object in a tree" as stated in Brunet et al.

It is respectfully submitted that the API hierarchical tree in Brunet et al. appears to be mapped on a Euclidean plane, and not a hyperbolic plane. If an API Euclidean tree is already capable of allowing "generic access to an object in a tree," there is no desire, and thus, no obvious reason, to further complicate the use of such a tree by converting it into a hyperbolic tree. A display device can certainly provide a hyperbolic tree for Bulatov's Java hyperbolic browser and a Euclidean tree for the API as discussed in Brunet et al.

Because the Office Action failed to establish a *prima facie* case of obviousness against claim 17, it is respectfully submitted that claim 17 is further allowable over the references of record, and withdrawal of the rejection of claim 17 is further respectfully requested.

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**Conclusion**

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Dated: October 19, 2005

By



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